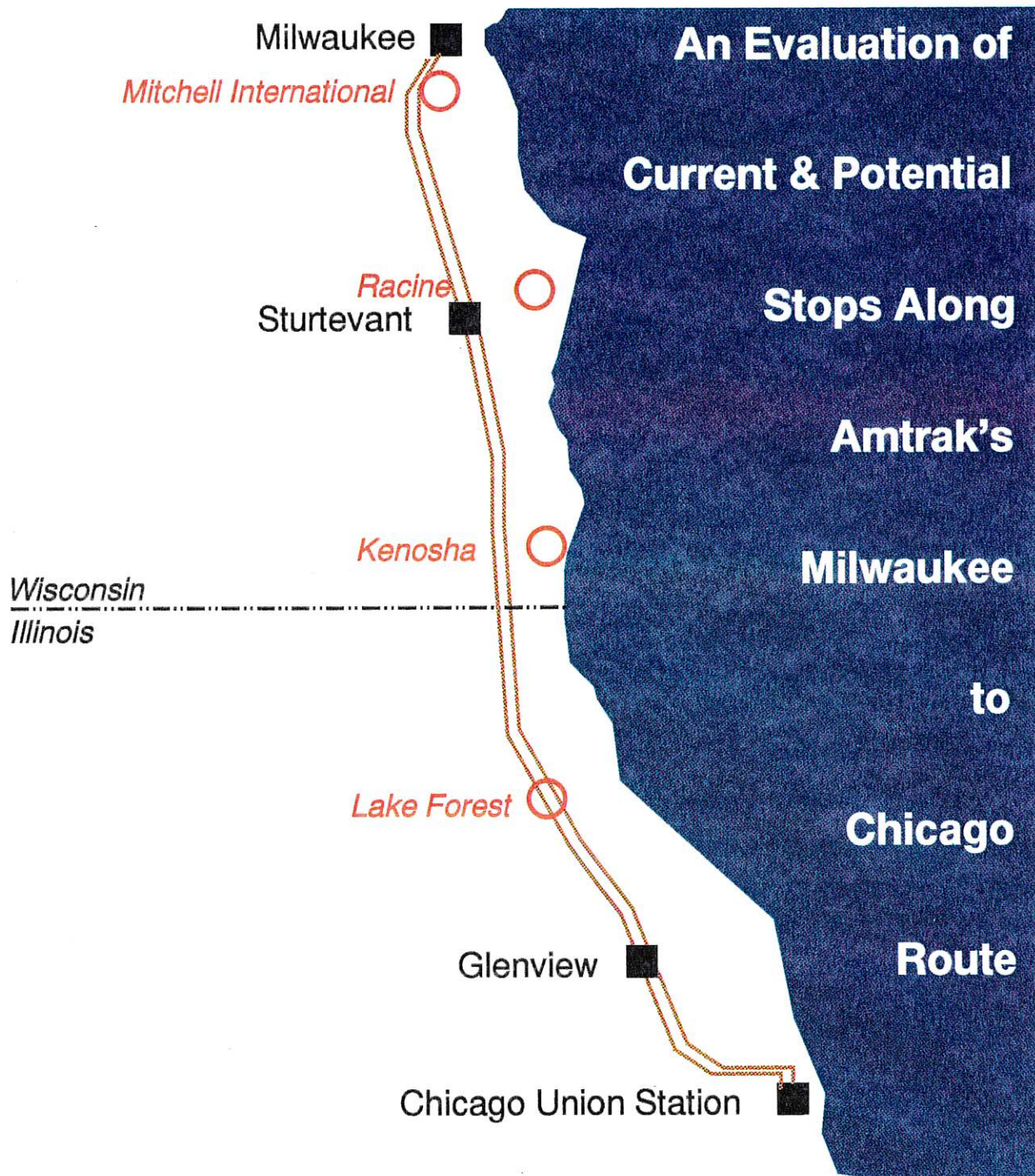




**National Railroad Passenger Corporation
Corporate Planning & Development
March 1994**



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A Tradition of Rail Service

There were originally three rail lines offering passenger service between Chicago and Milwaukee: the Chicago & North Western (C&NW), the Chicago, Milwaukee, St. Paul & Pacific Railroad (Milwaukee Road), and the Chicago, North Shore & Milwaukee (North Shore Line) interurban.



The C&NW's Milwaukee trains ran over the 85 mile "Shore Line" between the Chicago & North Western Terminal, at Madison and Canal Streets in Chicago, and the C&NW's lakefront station in Milwaukee. These trains traveled through the most affluent North Shore Chicago suburbs on a route that often was within sight of Lake Michigan.

The C&NW's distinctive armour yellow and apple green "400" streamliners carried the majority of the passenger traffic between Chicago and Milwaukee due to their ability to directly serve intermediate North Shore communities. In 1959, for example, the C&NW's Chicago-Milwaukee service consisted of 12 trains each way, including 6 limited-stop "400" streamliners, two expresses, and four all-stop locals. The "400" streamliners covered the 85 miles in as little as one hour and 25 minutes, making stops in Evanston, Waukegan, Kenosha, and Racine. Most trains continued on to Minneapolis-St. Paul, Green Bay, or communities in Michigan's

Current and Potential Hiawatha Station Stops

Upper Peninsula. While on-board services varied, most limited-stop trains provided dining and lounge facilities, with some trains also carrying sleeping cars or premium fare parlor (club) cars.



The Milwaukee Road's orange and maroon *Hiawatha* trains ran over its 85 mile Chicago and Milwaukee (C&M) line between Chicago Union Station at Canal Street and Jackson Boulevard and its Milwaukee station at West St. Paul Avenue.

Unlike the C&NW's route, the Milwaukee Road passed through mainly rural areas some six miles west of the populous lake front communities. What the C&M line lacked in en route passenger potential, it gained in being able to sustain high speed running between Chicago and Milwaukee.

In 1954, for example, the Milwaukee Road connected Chicago and Milwaukee with nine northbound and ten southbound trips daily, including seven *Hiawatha* trips, eight limited-stop expresses, and four all-stop locals. The *Hiawathas* covered the 85 miles in as little as one hour and 15 minutes with an intermediate stop at Deerfield. Most trains continued on to Minneapolis-St. Paul, Green Bay, or communities in northern Wisconsin and the Upper Peninsula of Michigan. While on-board services varied, most trains that went beyond Milwaukee provided dining and lounge facilities with several carrying sleeping cars or premium fare parlor (club) cars. In the later years, the *Hiawatha* trains also featured "Super Dome" full-length lounge cars.

Current and Potential Hiawatha Station Stops

The North Shore Line's red and green *Electroliners*



operated on an electrified 86 mile line between its Chicago Main Station at Wabash Avenue and Adams Street and its

Milwaukee terminal at Sixth and Michigan Streets. A distinctive

feature of North Shore Line service was its use of Chicago Transit Authority (CTA) elevated tracks in Chicago's Loop, permitting North Shore trains to make multiple stops between Howard Street on the north and its Main Station at Wabash Avenue. While the North Shore departed Chicago through the northwestern suburbs of Skokie and Northbrook, it turned back toward the lake shore north of Lake Bluff, directly serving the Great Lakes Naval Training Center, Waukegan, Kenosha, and Racine en route to Milwaukee.

In 1957, for example, the North Shore Line provided 20 daily round trips between Chicago and Milwaukee, including five *Electroliner* frequencies and 15 conventional trains. The *Electroliners* covered the 86 miles in as little as one hour and 56 minutes, making all Chicago stops and intermediate stops at North Chicago Junction, Waukegan, Kenosha, Racine, and all five Milwaukee stops.

The North Shore Line ceased service on January 20, 1963, but the C&NW and the Milwaukee Road continued passenger service to Milwaukee through April 30, 1971.



On May 1, 1971, Amtrak began service to Milwaukee. It chose the Milwaukee Road's C&M line for its Milwaukee service

Current and Potential Hiawatha Station Stops

since it wished to consolidate as many of its Chicago arrivals and departures as possible at Chicago Union Station. Initially Amtrak offered three Chicago-Milwaukee round trips per day plus the Chicago-Milwaukee-Seattle *Empire Builder*. One hour and 30 minutes was allowed for the 86 mile run. All but one round trip offered cafe-lounge service. At first the only en route stop was in Glenview, but with the July 12, 1971, timetable one train in each direction also stopped at Sturtevant near Racine.

On November 14, 1971, Amtrak's Chicago-Milwaukee service was expanded to seven round trips, including two round trips that originated in St. Louis and two trains that continued on to Seattle and/or Minneapolis-St. Paul. All trains offered food and beverage service.

For the next decade, Amtrak's Milwaukee service remained fairly constant with four or five local frequencies and two frequencies that went to Seattle and/or St. Paul-Minneapolis. In 1981, however, food and beverage service on the local trains was discontinued in an economy move. On October 1, 1981, all but two local Milwaukee trains were discontinued as part of a nationwide route restructuring. The Chicago-Seattle *Empire Builder* provided a third departure between Chicago and Milwaukee. Most trains also stopped at Glenview and Sturtevant, making the Chicago-Milwaukee run in one hour and 32 minutes.

A third local round trip was reinstated on October 28, 1984.

The schedule pattern that resulted from the 1981 route restructuring and the

Current and Potential Hiawatha Station Stops

1984 service addition provided connections with Amtrak's long-distance services at Chicago and allowed one-day business and recreational visits to Chicago. The earliest arrival in Chicago was at 8:32 am with the latest departure from Chicago at 6:30 pm, permitting a 10 hour stay in Chicago. By contrast, the earliest arrival in Milwaukee was at 12:17 pm, with the last departure from Milwaukee at 3:45 pm, allowing a maximum of three and a half hours in Milwaukee. One day business and tourist trips to Milwaukee were not possible.

This situation caused the City of Milwaukee to fear that its downtown rejuvenation and its growing importance as a regional financial and insurance center could be jeopardized by poor public access to the city from Chicago. The city also believed the success of its Summerfest lakefront ethnic festivals could be enhanced if Chicagoans could make one-day rail trips to Summerfest activities.

As a result, the City of Milwaukee convened a meeting on January 30, 1989, of state, county, city, Illinois, and Amtrak officials to discuss expanded Amtrak service to Milwaukee which would permit one-day visits to Milwaukee.

As a result of this meeting, on October 29, 1989, the States of Wisconsin and Illinois began sponsoring two *Hiawatha Service* trains between Chicago and Milwaukee, bringing the total number of local round trips to five. Under the new schedule pattern, the first Amtrak train arrived in Milwaukee at 8:07 am, with the last train departing Milwaukee at 6:40 pm, permitting a full business day in Milwaukee. In the first year of operation, the expanded service generated a 53

Current and Potential Hiawatha Station Stops

percent increase in ridership. The states, pleased with the *Hiawatha Service's* success, on October 27, 1991, added two more state-sponsored round-trips.

There currently are seven daily round-trip Chicago-Milwaukee *Hiawatha Service* frequencies connecting Chicago Union Station, Glenview, Sturtevant, and Milwaukee. Each bi-directional train consists of one F40 locomotive, 2 Horizon Fleet coaches and one cab-control coach, with a total capacity of 236 passengers.

The route currently requires an operating payment from Wisconsin and Illinois of approximately \$420,000 (for four state-supported round trips) as well as an Amtrak federal subsidy of approximately \$2.4 million for all seven *Hiawatha Service* trains. The route has a passenger mile per train mile ratio of 80, which is considered the minimum for viable short-distance rail passenger service.

Illinois and Wisconsin have now embarked on a study of incrementally improving the rail line to support high-speed rail service. The departments of transportation of these states have retained a consultant to study the costs and benefits of high-speed rail service, and the investment that would be necessary to implement the service. The consultant was tasked with selecting the most promising route between the two cities, identifying the technology options for steel-wheel on steel-rail high-speed service, and incrementally developing the service by specific improvements.

To date, the consultant has selected the current Amtrak route over the CP Rail/Soo Line C&M Subdivision as the best route for high-speed service due to: (1)

Current and Potential Hiawatha Station Stops

its existing and potential track capacity, (2) multiple intercity connections at Chicago Union Station and the Milwaukee station, (3) the line's ability to serve existing and potential markets, (4) relatively minimal environmental and community impacts, and (5) CP Rail/Soo Line's willingness to coexist with passenger trains within one common right-of-way.

The Federal Railroad Administration (FRA) has also included Amtrak's Chicago-Milwaukee route as part of the Midwest High Speed Corridor, one of six national corridors designated in accordance with the National High Speed Ground Transportation Program. The Midwest Corridor also includes the city-pairs of Chicago-St. Louis and Chicago-Detroit. This FRA designation makes the line eligible for federal funds for grade crossing eliminations, high-speed technology demonstrations, and future infrastructure improvements.

With such heightened interest in strengthening and expanding Chicago-Milwaukee service, Amtrak has been asked by the States of Illinois and Wisconsin to identify the optimum number of stops between Chicago and Milwaukee trains should make in order to maximize ridership and revenues. The evaluation of such stops is the focus of this report.

Current and Potential Hiawatha Station Stops

Union Station, Chicago, Illinois

Chicago Union Station is the southern anchor for Amtrak's *Hiawatha Service*, and is also the hub of Amtrak's national system. The station is served by approximately 50 Amtrak intercity trains daily, as well as 205 Metra commuter arrivals and departures on five of Metra's eleven commuter rail lines.

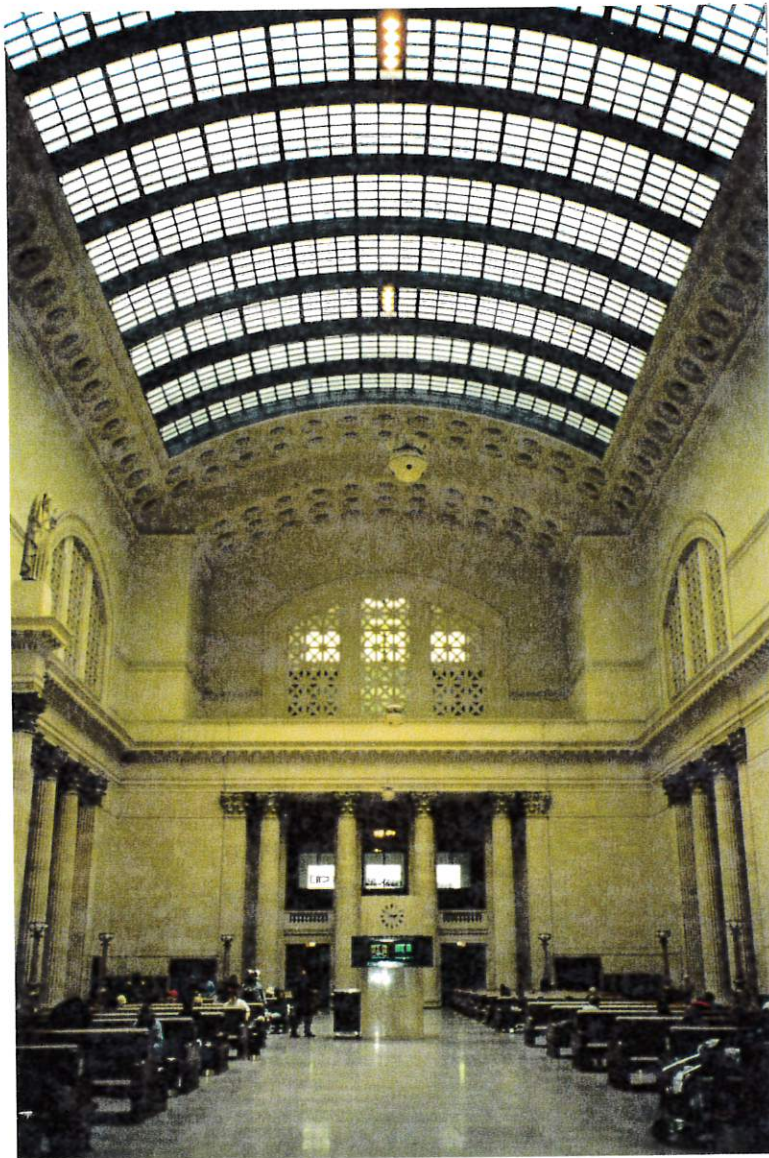
During FY93, Chicago generated over 370,000 Amtrak intercity passengers, \$4.4 million in revenue and nearly 31 million passenger miles. Chicago contributed 47 percent of the Chicago-Milwaukee route's ridership and transportation revenue, as well as 48 percent of the route's passenger miles. (Combined with passengers originating in Milwaukee, these two cities accounted for 92.7 percent of the route's ridership, 93.6 percent of its transportation revenue, and 95 percent of its passenger miles.)

The Chicago Metropolitan Area is the third most populous in the United States, with over 8 million residents in 1990. It is also the economic hub of the Midwest, and with its major league football, baseball, basketball, and hockey teams, its numerous museums, zoos, parks, and cultural attractions, its annual trade shows and conventions, its fine stores and restaurants, it is a major attraction destination for national and international travelers.

Union Station faces Sears Tower, the world's tallest building, which stands

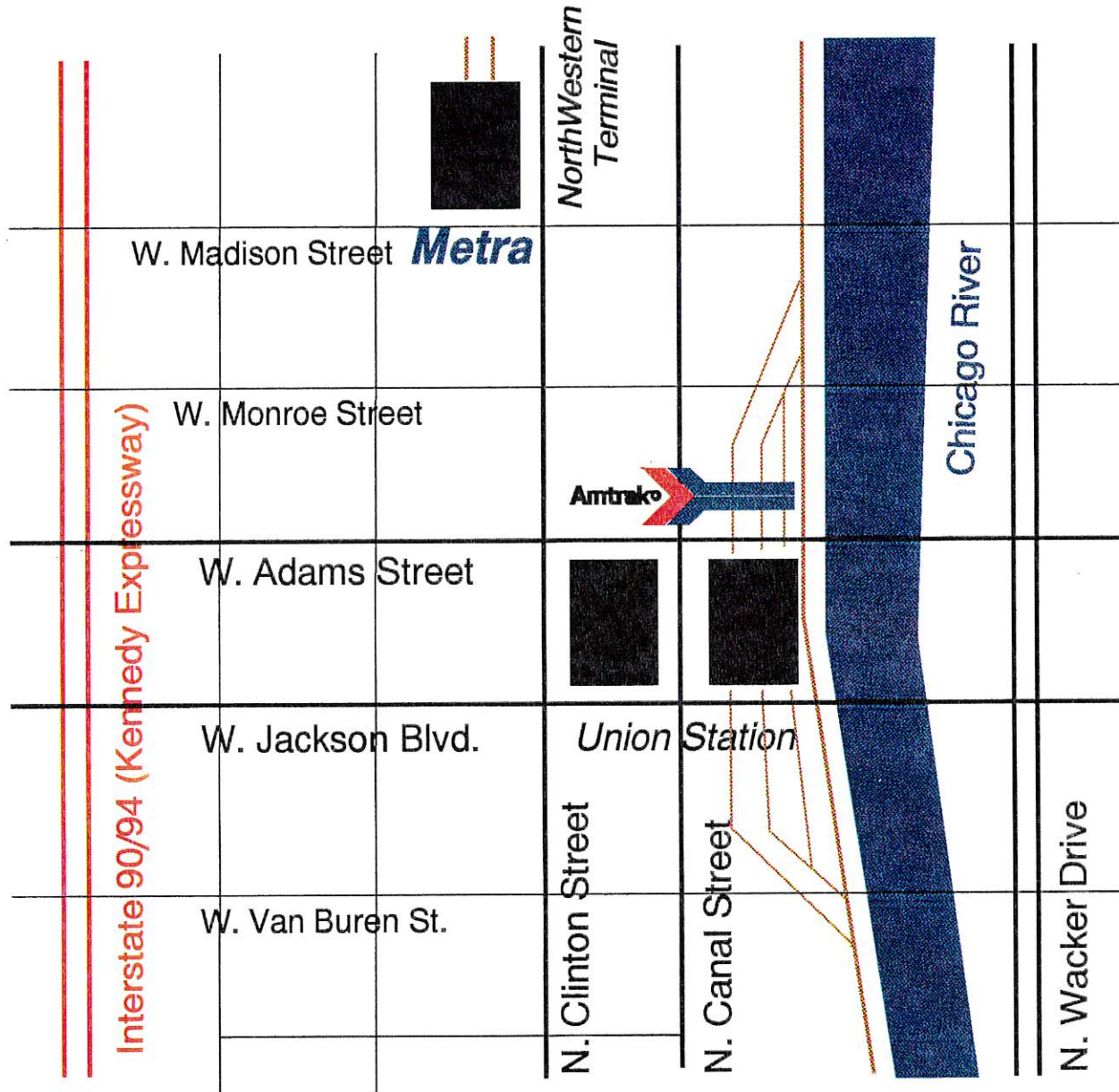
Current and Potential Hiawatha Station Stops

across the Chicago River in Chicago's central business district "Loop" (see map 1). The station, which is owned and operated by the Chicago Union Station Company (CUS), a subsidiary of Amtrak, recently underwent a \$32 million renovation.



Chicago Union Station's Great Hall

Map 1: Chicago Union Station (CHI)



Map is not to scale.

Current and Potential Hiawatha Station Stops

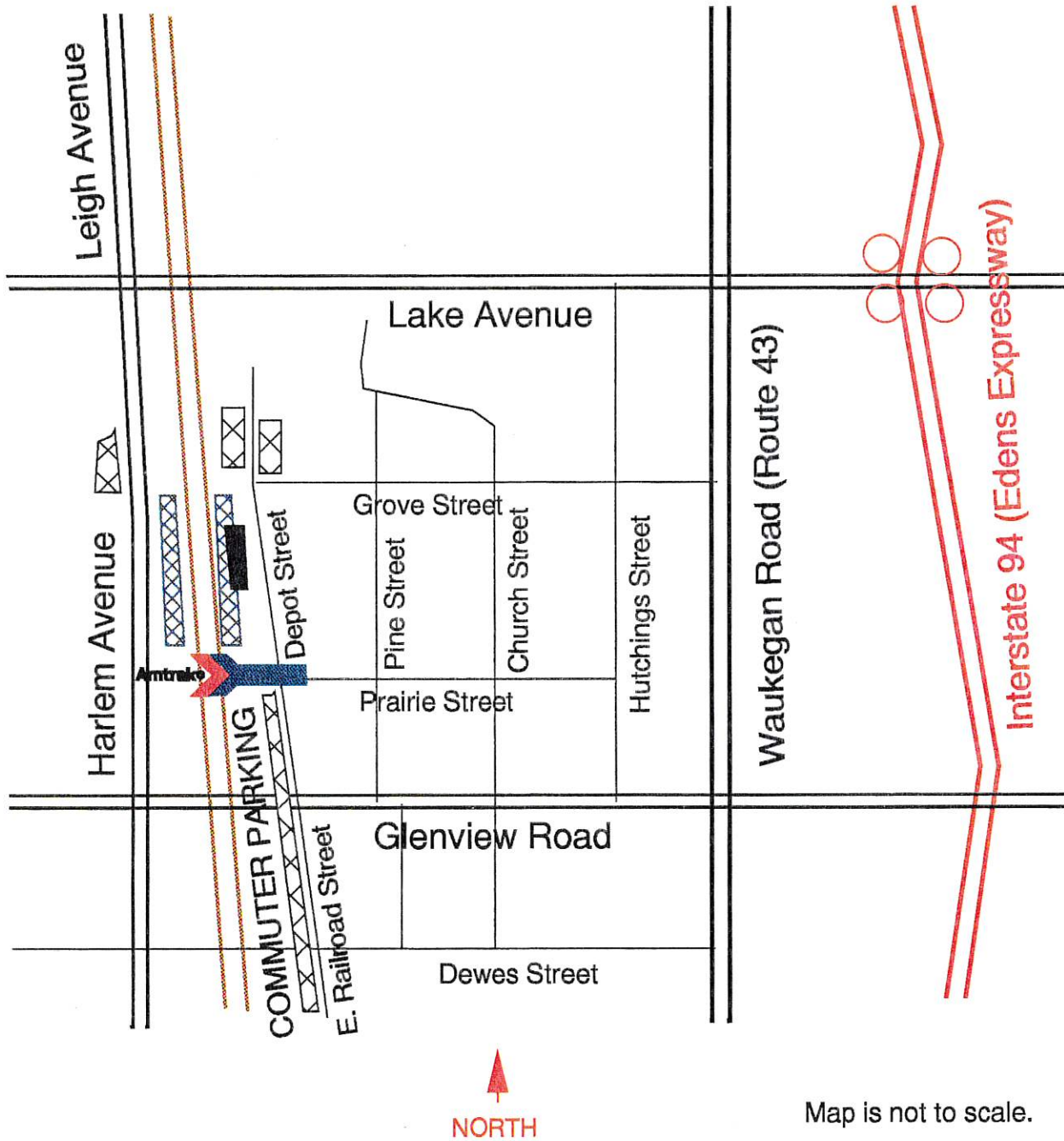
Glenview, Illinois

Glenview, Illinois, 17 miles north of Chicago Union Station, is the first intermediate station stop on the Chicago-Milwaukee route. The station is served by all *Hiawatha Service* trains and by the *Empire Builder*. Glenview is also served by 48 Metra Milwaukee District North Line weekday commuter trains, which originate at Chicago Union Station.

In FY93, the 20,965 Amtrak passengers who used Glenview accounted for only 2.7 percent of the Chicago-Milwaukee route's ridership and just 2.6 percent of the transportation revenues, the least amount of any station on the route. Of the four current Chicago-Milwaukee stations, it also generated the least number of passenger miles, being 1,197,000 in FY93, or 1.9 percent of the route's total.

The Village of Glenview currently has a population of approximately 37,100. Over 15,000 of the residents work outside the Village, and approximately 1,500 use either Metra or Amtrak to reach their place of employment. The rail station is on Depot Street, four blocks west along either Grove or Prairie Streets from Waukegan Road (Route 43), and less than two blocks north of Glenview Road (see map 2). Access to the Edens Expressway (Interstate 94) is via Waukegan Road and Lake Avenue, and the drive is approximately 10 minutes. As Grove and Prairie Streets are residential in nature, station access can prove somewhat confusing to

Map 2: Glenview, IL (GLN)



Current and Potential Hiawatha Station Stops

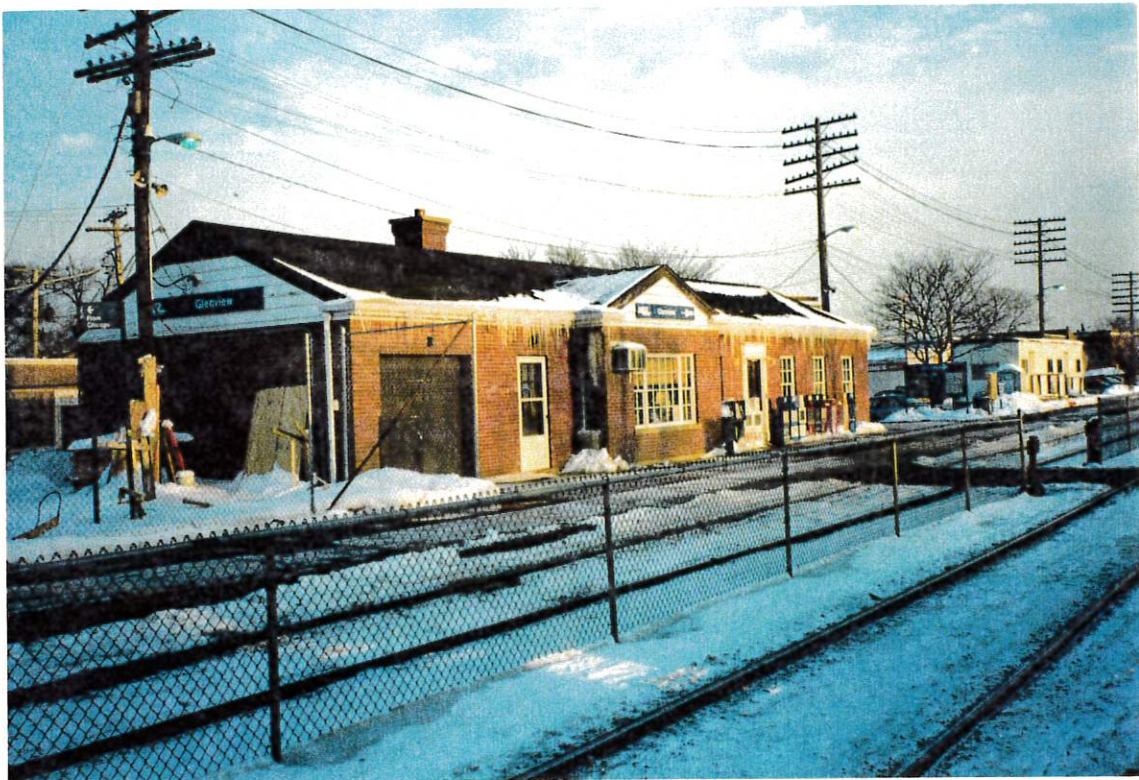
persons unfamiliar with the area. Since Depot Street is narrow, there is no designated passenger drop-off area. The station neighbors are a tavern, a glass and mirror store, a lumber yard, a vacant commercial building, and a public works facility. The station is not a prominent development in the area. The Glenview Naval Air Station is just to the north on Lake Avenue.

Metra plans to replace the current station building with a new \$2.5 million facility and Amtrak, the State of Illinois, and the Village of Glenview will contribute funding. The new facility, at the same location, will have an enlarged waiting room, improved baggage and express handling facilities, and will be fully compliant with the Americans with Disabilities Act. A new passenger drop-off area will be constructed by extending Grove Street west. With these improvements, Amtrak expects passenger revenue generated by Glenview to increase by \$10,000 to \$20,000 annually.

Glenview's largest drawbacks in attracting intercity passengers are its backstreet location and its scattered parking facilities. Although there are over 600 available parking spaces, all are designated for commuters, and overnight, multiple-day parking needed by intercity passengers is not available. Also, the spaces are dispersed in 14 different lots (none of which has more than 108 spaces) in a six-block area.

Metra has three nearby stations on this rail line (Northbrook, Deerfield, and Lake Forest). Deerfield and Northbrook are older suburban communities, which

Current and Potential Hiawatha Station Stops



Amtrak's Glenview, Illinois Station

Current and Potential Hiawatha Station Stops

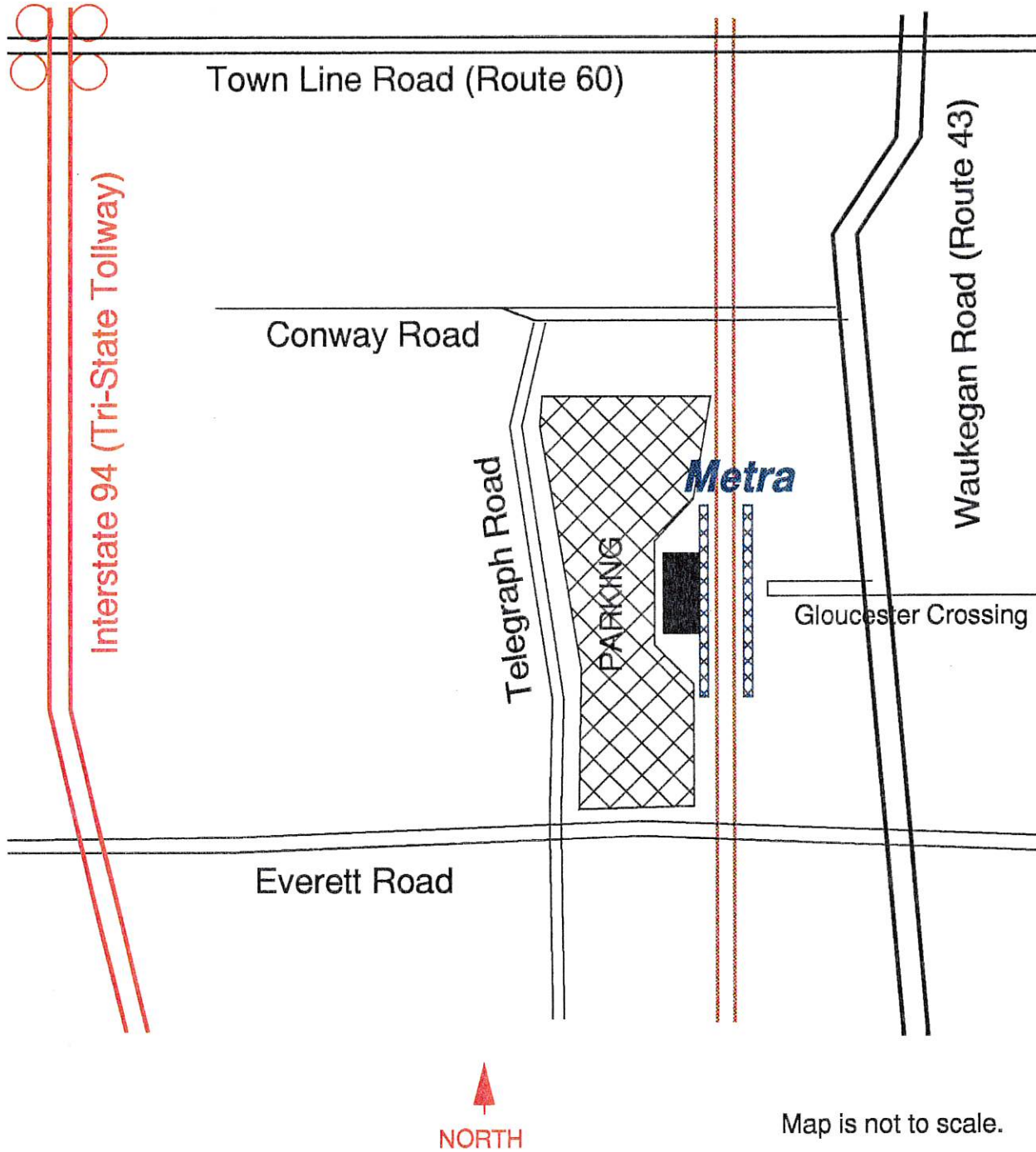
although they have more direct access to I-94 than Glenview, do not have the overnight parking facilities desired by intercity passengers. However, Metra's new Lake Forest station, located 11 miles north, does.

Metra's new 6,000 square foot Lake Forest station, designed by the local architect Richard Geudtner, overlooks Waukegan Road (Route 43) at its intersection with Gloucester Crossing. On the opposite side of the tracks is a 400 space commuter parking lot, which is accessed by Telegraph Road, one block from Waukegan Road via either Conway or Everett Roads (see map 3).

The English Norman-style station is located on Lake Forest's growing West Side, and is considered to be the centerpiece for future economic activity in the area. The city spent nearly \$5.5 million for property acquisition, and over \$2.4 million for construction. The surrounding neighborhood consists of modern single-family detached housing and new government and commercial developments. Within one block of the station along Conway, between Waukegan Road and the rail line, is the Conway Court shopping center, which faces the Sunset Corners shopping plaza across Waukegan Road. Interstate 94 is a five minute drive via Waukegan Road and Route 60.

This station, with its ample parking, has high visibility in Lake Forest, with easy access from major thoroughfares. The station is also convenient to Lake Forest College, Lake Forest School of Management, and Barat College.

Map 3: Lake Forest, IL



Current and Potential Hiawatha Station Stops



Metra's new station at Lake Forest, Illinois

Current and Potential Hiawatha Station Stops

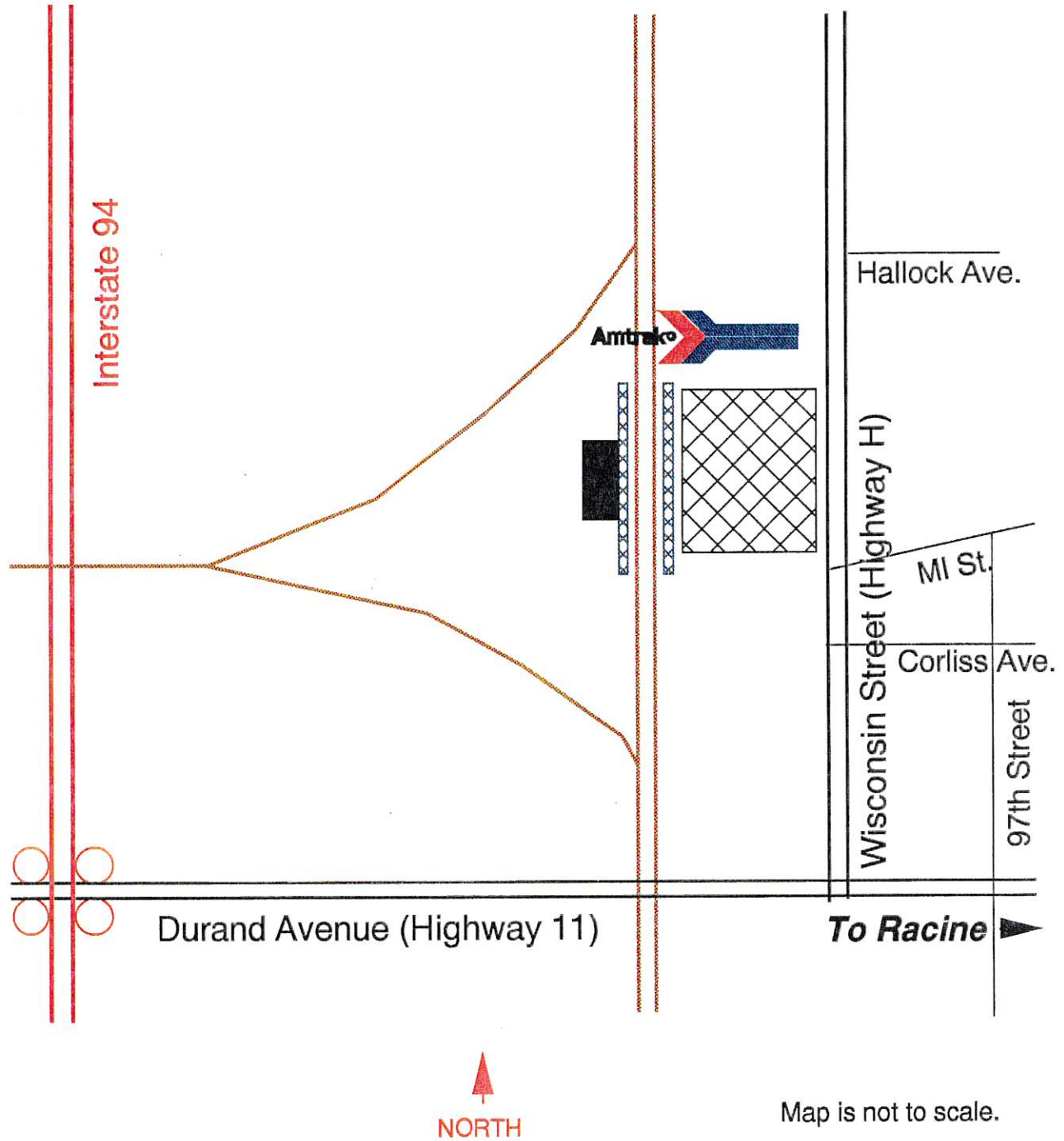
Sturtevant, Wisconsin

Sturtevant, Wisconsin, 62 miles north of Chicago Union Station, is the second intermediate station on the Chicago-Milwaukee line. The station is a stop for all *Hiawatha Service* trains but not for the *Empire Builder*. Amtrak provides the only rail passenger service to Sturtevant.

The 36,192 passengers who used the Sturtevant station in FY93 accounted for 4.6 percent of the Chicago-Milwaukee route's ridership and 3.8 percent of its transportation revenue. These passengers generated 3.2 percent of the route's total passenger miles.

The Village of Sturtevant has approximately 3,800 residents. Of the 1,989 persons employed, 1,650 work outside of the Village. However, none of these persons report using rail passenger service as a means to reach their place of employment. The station is across the CP Rail/Soo Line tracks from Wisconsin Street (County Highway H), at its intersection with Michigan Avenue (see map 4). The Tri-State Tollway (Interstate 94) is a five minute drive to the west via Durand Avenue (Highway 11). Next door to the station parking lot (70-80 spaces) is a tavern, with another bar across Wisconsin Street, next to a restaurant. Behind the station is a farm implement dealer, with the surrounding area predominantly being a single-family detached housing.

Map 4: Sturtevant, WI (STV)



Current and Potential Hiawatha Station Stops

The Village of Sturtevant has recently purchased the station and is working to upgrade the facility.

Sturtevant principally serves as the stop for Racine, Wisconsin, a 15-20 minute drive east on Durand Avenue, beyond the Regency Mall with its numerous retail outlets. The Belle Urban System provides local bus service between the station and Racine.

Racine's population is over 84,000. Of the 36,940 residents who worked and were over 16 years of age, 25,881 worked outside of the city, and 15 reported that they used rail passenger service to reach their place of employment.

Historically Racine developed as a regional center of commerce and manufacturing located on the shore of Lake Michigan at the mouth of the Root River. Today the city continues its industrial role, hosting over 300 manufacturing firms, including S.C. Johnson Wax and J. I. Case within the city limits. Racine has a growing tourism industry, being home of the Golden Roundelle Theater, several lakeside parks, and the Racine Yacht Club.

Current and Potential Hiawatha Station Stops



Amtrak's station at Sturtevant, Wisconsin

Current and Potential Hiawatha Station Stops

Milwaukee, Wisconsin

Milwaukee, Wisconsin, 86 miles north of Chicago Union Station, is the northern anchor of the Chicago-Milwaukee *Hiawatha Service* and is served as well by the Chicago-Seattle/Portland *Empire Builder*. Amtrak provides the only rail passenger service to Milwaukee.

In FY93, nearly 360,000 passengers arrived and departed from Amtrak's Milwaukee station for destinations on the Chicago-Milwaukee route, generating 45.7 percent of the total route's ridership. These passengers brought in 46.3 percent of the route's transportation revenue and generated 46.9 percent of the route's passenger miles. (Combined with passengers boarding at Chicago Union Station, these two stations generated 92.7 percent of the route's passengers, 93.6 percent of its transportation revenue, and 95 percent of its passenger miles.)

Milwaukee is part of the Milwaukee-Racine consolidated metropolitan statistical area, which has a total population of over 1,607,000. The City of Milwaukee itself has a population of over 628,000. Of the 269,401 Milwaukee residents over age 16 who work, 89,658 work outside of the city. Of those workers, 31 report that they use rail passenger service to reach their place of employment.

The Milwaukee station is on St. Paul Avenue, between Fourth and Fifth

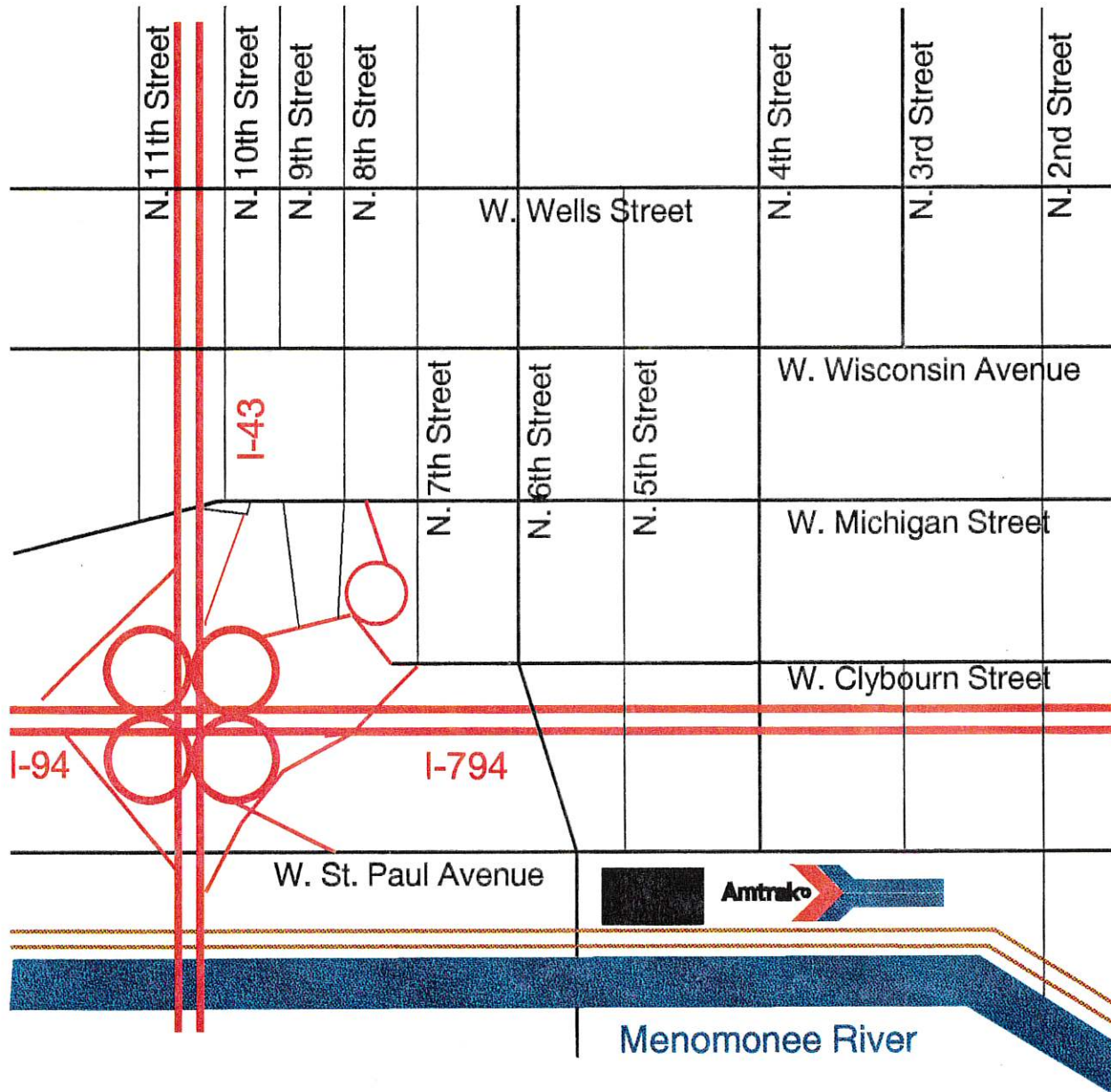
Current and Potential Hiawatha Station Stops

Streets (see map 5). Interstate 94 and 43's Marquette Interchange is approximately one block to the west. East of the station is the Milwaukee postal facility, with the Menomonee River running just south of the railroad right-of-way. The areas to the east, west, and south of the station are industrial. A few blocks to the north and east lies Milwaukee's burgeoning redeveloped downtown, including "Old World" Third Street's German and riverfront restaurants and shops, the Schlitz Brewery Park Complex, the Pabst Brewing Company, the Grand Avenue Mall, and the Milwaukee Exposition Convention Center and Arena (MECCA).



Amtrak's Station at Milwaukee, Wisconsin

Map 5: Milwaukee, WI (MKE)



Current and Potential Hiawatha Station Stops

Kenosha, Wisconsin

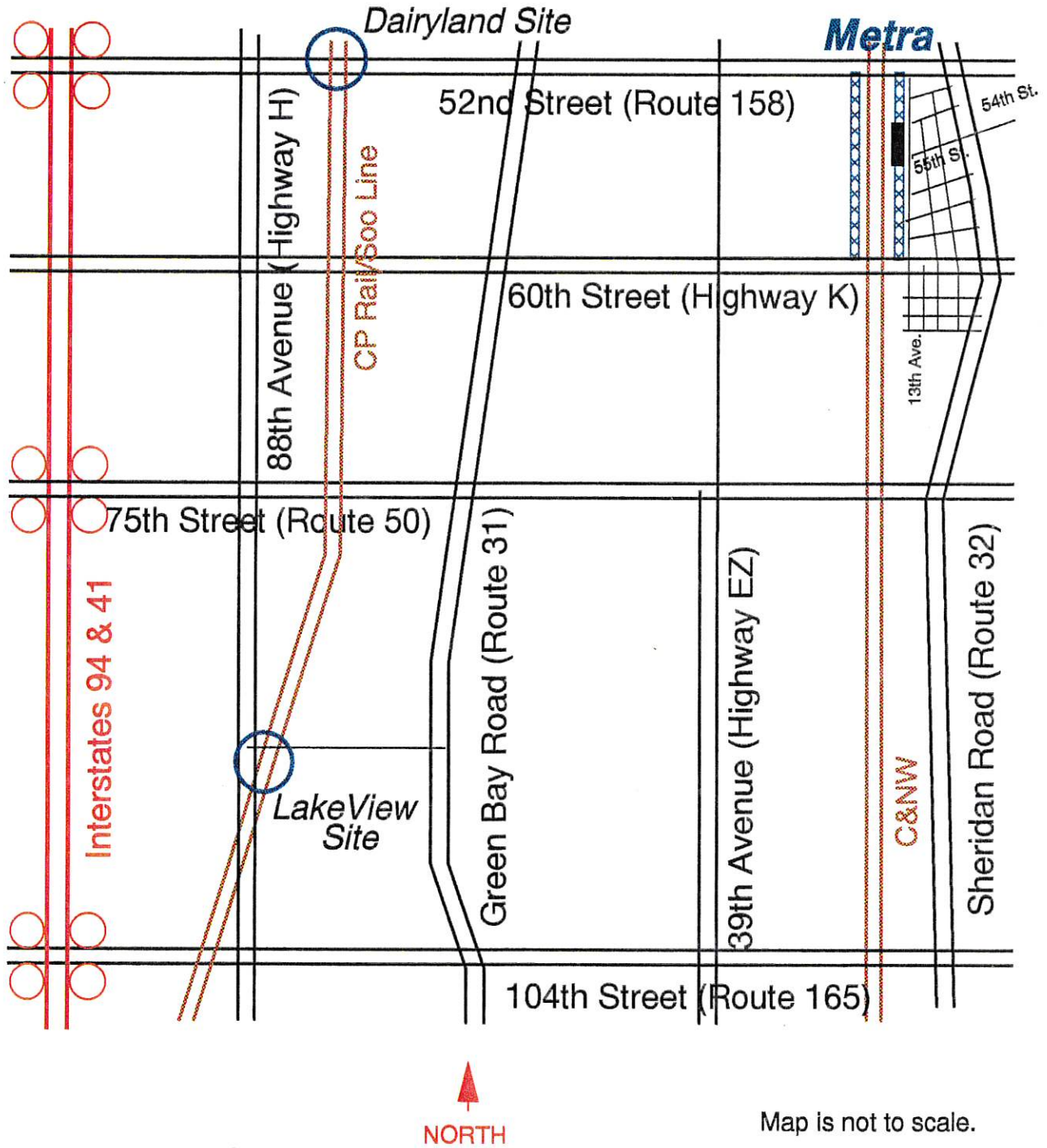
Kenosha, 52 miles north of Chicago's NorthWestern Terminal, is currently the northern terminus for Metra's Chicago and NorthWestern North Line commuter trains. The Metra station (formerly the C&NW station) is located downtown on 13th Avenue, between 54th and 55th Streets, four blocks from Sheridan Road (Route 32).

Metra reports that on an average weekday at Kenosha, there are 308 Metra passengers who board and 313 who alight. For the month of October 1993 a total of 11,003 Metra passengers used the Kenosha station. With nine weekday round trips to Chicago, each train averages 35 passengers per day at Kenosha.

The City of Kenosha has a population of over 80,000. Of the 35,364 people who are over age 16 and working, 14,710 work outside of Kenosha. Of those residents, 143 report that they use rail passenger service to reach their work place.

The proposed Amtrak station on the CP Rail/Soo Line C&M Line at the LakeView Corporate Park would be located on 88th Avenue (Highway H), a 20-25 minute drive from downtown Kenosha in Pleasant Prairie (see map 6). Interstate 94 is less than five minutes away via the Lakeview Parkway. The site is across from the proposed lake and is near the Wisconsin Electric Power Company's

Map 6: Kenosha, WI



Current and Potential Hiawatha Station Stops

Pleasant Prairie power plant and Lawter International's printing-machinery manufacturing plant.

An earlier proposed site was near the Dairyland Greyhound Park and the Kenosha Regional Airport on 52nd Street (route 158). This site is just several minutes drive from Interstate 94, and is a 10 minute drive from downtown. The site is largely surrounded by farmland, although the City Industrial Park is within a few blocks.

The city has funding available for the construction of an Amtrak Kenosha station.

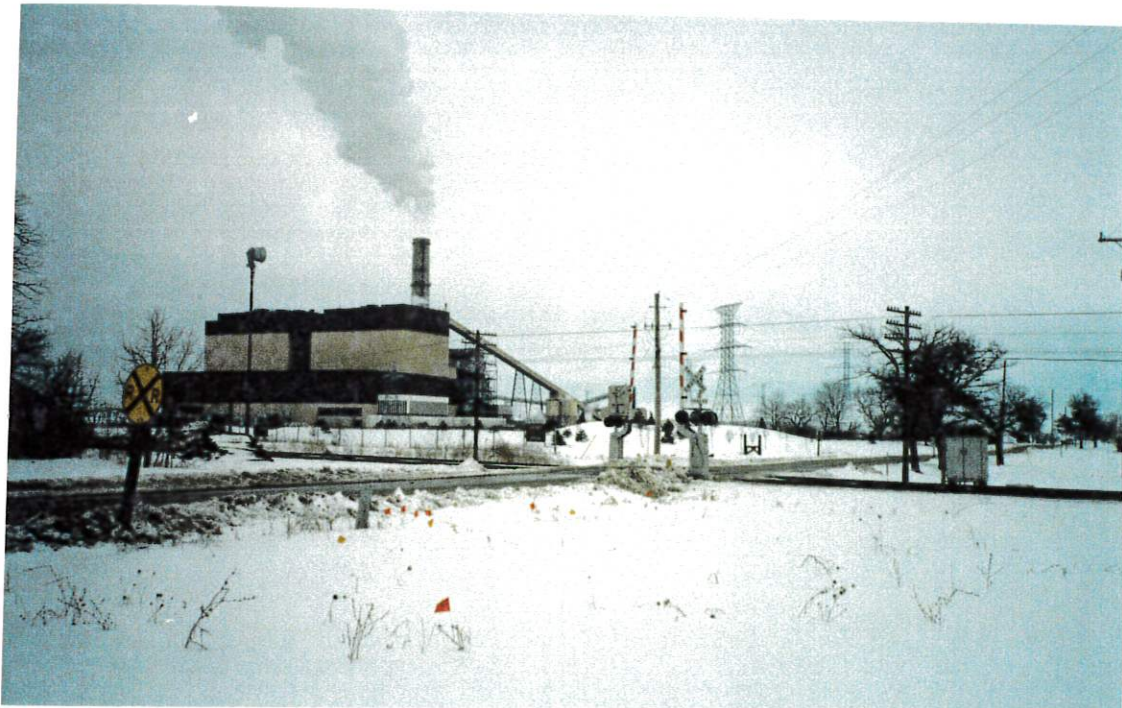


Metra's Kenosha Station

Current and Potential Hiawatha Station Stops



The proposed Dairyland station site



The proposed LakeView Corporate Park station site

Current and Potential Hiawatha Station Stops

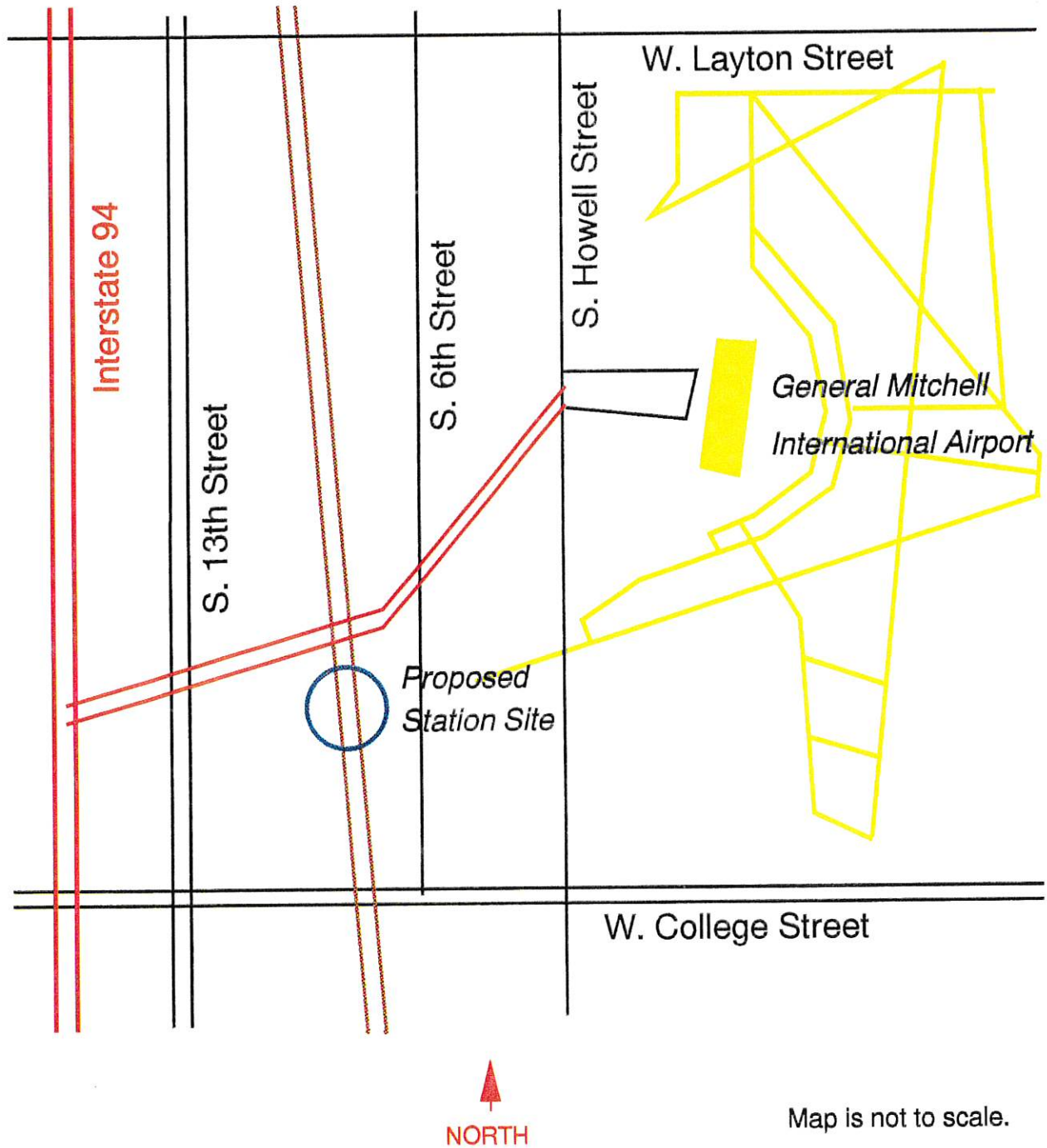
General Mitchell International Airport, Milwaukee, Wisconsin

The State of Wisconsin has proposed adding a rail passenger station on the Chicago-Milwaukee route at General Mitchell International Airport. The state believes that this stop could attract passengers from Chicago who wish to avoid O'Hare Airport's congestion. Additionally if Amtrak's Chicago-Milwaukee service were extended to Madison and Green Bay, the state believes air passengers from these under-served air cities and air-deprived Fox River Valley communities would use Amtrak services to reach Mitchell International.

Mitchell International is on the southern edge of Milwaukee near Lake Michigan and is connected to Interstate 94 via a limited access spur (see map 7). Several hotels and restaurants are adjacent to the terminal, and residential and industrial developments surround the area.

Amtrak has only limited experience with providing airline passengers access to major airports. For the most part, airlines generate their own "feeder" traffic through code-sharing with commuter carriers, such as American Eagle, Delta Connection, Northwest Airlink, to serve the smaller markets. Amtrak service to Mitchell International, however, could well prove the exception, given the nature of air service to Wisconsin. Northwest Airlines, the major carrier to cities such as Madison and Green Bay, provides jet service from these points only to its hubs in

Map 7: General Mitchell International Airport

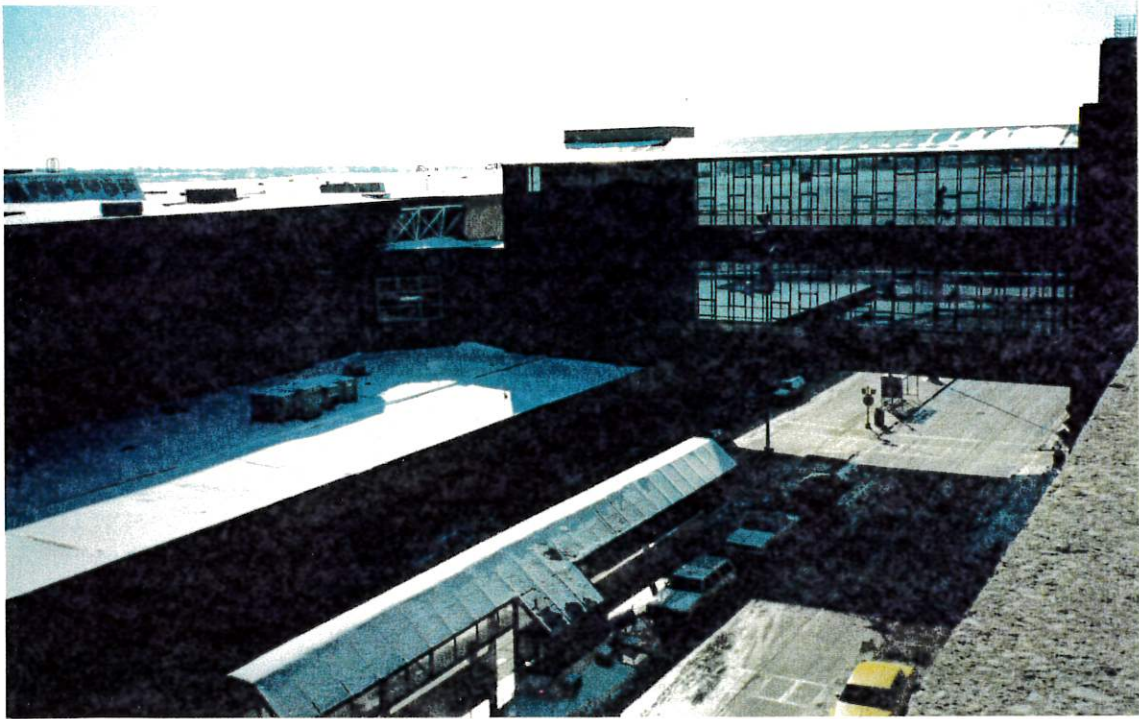


Current and Potential Hiawatha Station Stops

Detroit and Minneapolis. Travelers from Madison, Green Bay, Appleton, or Oshkosh wishing to access Milwaukee or Chicago for flights to other destinations must do so, with the exception of two Midwest Express DC9 flights from Madison to Milwaukee and three United Airlines 737 flights from Madison to Chicago, almost exclusively by 19-passenger commuter propeller aircraft. In such an environment, there may well be a market for using Amtrak rail services to reach a major commercial airport, such as Mitchell International.

Wisconsin also points out that a station at Mitchell International could justify itself as a suburban Milwaukee stop, given its southside location, the population growth in the area, and its convenient access to Interstates 94 and 894, as well as Wisconsin route 15. Amtrak has experienced a similar phenomenon at its station located at BWI Airport, just south of Baltimore where the primary use has been from suburban residents around the airport using the rail station to travel to Washington, D.C., and points south, and to Wilmington, Philadelphia, New York City, and other Northeast points.

Current and Potential Hiawatha Station Stops



Main terminal of Mitchell International



Proposed station site at Mitchell International

Current and Potential Hiawatha Station Stops

Stopping Patterns and Revenue Impact

The present seven *Hiawatha Service* frequencies on their runs between Chicago Union Station and Milwaukee make station stops at Glenview and Sturtevant. The passenger traffic share by station is shown below:

Station (in order of revenue share)	Share of Passengers	Share of Passenger Miles	Share of Revenue
Chicago Union Station	47.0%	48.1%	47.3%
Milwaukee	45.7%	46.9%	46.3%
Sturtevant	4.6%	3.2%	3.8%
Glenview	2.7%	1.9%	2.6%

Chicago and Milwaukee account for 93.6 percent of the total transportation revenue generated by this route. This is not surprising since nearly half of the route's surrounding metropolitan county population resides in these two central cities. The present service in 1994 is expected to generate 424,000 passengers, 32,863,000 passenger miles, and \$5,136,000 in transportation revenue.

The current and proposed stations along the Chicago-Milwaukee route create a number of possible stopping options. Seven scenarios have been evaluated for this report. Figure 1 lists the anticipated ridership and revenue for the Chicago-Milwaukee route under each scenario, listed in order of the greatest revenue

Current and Potential Hiawatha Station Stops

Figure 1: Comparison of Station Stopping Patterns for Chicago-Milwaukee Service

Scenario	Endpoint Running Time (minutes)	Passengers	Passenger Miles	Transportation Revenue	Difference In Trans. Rev. From Current Service
No Intermediate Stops (Chicago-Milwaukee non-stop)	86	425,000	34,076,000	5,244,000	2.1%
Add Mitchell Field (Chicago-Milwaukee via GLN, STV, MIT)	97	428,000	32,790,000	5,184,000	0.9%
Present Service (Chicago-Milwaukee via GLN, STV)	92	424,000	32,863,000	5,136,000	0.0%
Add Kenosha & Mitchell Field (Chicago-Milwaukee via GLN, KEN, STV, MIT)	102	412,000	30,992,000	4,946,000	-3.7%
Add Kenosha (Chicago-Milwaukee via GLN, KEN, STV)	97	404,600	31,394,000	4,944,000	-3.7%
Drop Sturtevant, add Kenosha & Mitchell Field (Chicago-Milwaukee via GLN, KEN, MIT)	99	393,000	30,369,000	4,797,000	-6.6%
Drop Sturtevant, add Kenosha (Chicago-Milwaukee via GLN, KEN)	94	388,000	30,304,000	4,728,000	-7.9%

Current and Potential Hiawatha Station Stops

producing pattern of stops to the least revenue producing pattern. The revenue projections include adding five minutes to the scheduled end-point running times for each station added, and the reduction of three minutes to the scheduled end-point running times for each station deleted from the current service.

The scenario with the highest projected revenue is that of no intermediate station stops between Chicago and Milwaukee. Given the population dominance of the two endpoints, and their economic, cultural, sporting, and social ties with one another, the transportation that provides the fastest and most frequent service between the two will garner an increasingly greater share of business and discretionary travel. This is especially relevant given the relatively short distance of 86 miles between the two cities and the inherent modal choice tradeoffs between using public transportation and one's own automobile. Making no stops between Chicago and Milwaukee would reduce the end point running time by six minutes, increase revenues by 2.1 percent from the current service, generate 1,000 more passengers and over 1 million more passenger miles annually.

The second-best scenario is that of adding a station at General Mitchell International Airport to the current service. Although this option would add five minutes to the Chicago-Milwaukee running times and attract 3,000 more passengers to the route than the no intermediate stations scenario, it would generate fewer passenger miles, and therefore less revenue, due to shorter trip lengths and the slightly increased running times, than the nonstop service. It

Current and Potential Hiawatha Station Stops

would, however, generate one percent more revenue and 4,000 more passengers annually than the present service.

Adding Kenosha and Mitchell International would add 10 minutes to the present Chicago-Milwaukee schedule, 3.7 percent less revenue than the current service, as well as attract 2,000 fewer passengers and generate nearly 2 million fewer passenger miles annually than today's *Hiawatha Service*.

Adding Kenosha alone to the present *Hiawatha Service* would increase overall running times by five minutes, but would attract nearly 20,000 fewer passengers than the current service, reducing the annual route revenue by 3.7 percent.

Dropping Sturtevant while adding Kenosha and Mitchell International would add seven minutes to the overall running times, but would attract 31,000 fewer passengers to the route, and decrease the route's annual revenues by 6.6 percent.

Replacing Sturtevant with a stop at Kenosha would increase the overall route running time by only two minutes, but would attract 36,000 fewer passengers, causing an annual revenue loss of nearly eight percent.

Conclusion

Although there are a variety of proposals to add intermediate station stops between Chicago and Milwaukee, the data presented in this report suggest that end-point trip time reductions would generate more revenue than any combination of en route station stops. The data also suggest that if intermediate station stops are to be made on this route, the current ones at Glenview and Sturtevant would generate the most revenue. This is true for several reasons. Glenview, being only 17 miles north of Chicago Union Station, generates greater revenue per passenger than a stop more equidistant to the two endpoints, allows access from the populous North Shore suburbs of Chicago, and permits convenient taxi transfers to Chicago's O'Hare Airport. Sturtevant benefits from being an established station stop and from its proximity to Racine, the largest en route population center, and one which lacks alternate rail transportation to Chicago.

Adding a station at General Mitchell International Airport to the current service would also increase current revenue, but by less than half of what could be obtained if all intermediate stops were discontinued.

A new station at Kenosha would reduce the total transportation revenue the route generates, whether it is added to the current intermediate stations or replaces Sturtevant.

Current and Potential Hiawatha Station Stops

Kenosha has several disadvantages as a station stop. The previously proposed Amtrak Dairyland Kenosha stop is five miles west of Kenosha's central business district, making it less convenient than the current Metra rail station in Kenosha for trips to Chicago. For the currently proposed LakeView site, the inconvenience to downtown is even greater. Being 52 miles north of Chicago, the stop is closer to Chicago than either Sturtevant or Mitchell International and therefore would generate less revenue per passenger, and would generate significantly less revenue than endpoint passengers, while requiring additional time to be added to the schedules. Kenosha is a smaller population center than Racine, with correspondingly less potential for passenger generation. Its need for Amtrak service is also less given its current access to nine weekday Metra round trips to Chicago.

The data suggests that the route cannot support the additional running time any two stations, such as Kenosha and Mitchell International, would add to the current schedules, regardless of the revenue they may generate as new locations.

Recommendations

For the present, the *Hiawatha Service* pattern of two intermediate stops at Glenview and Sturtevant between Chicago and Milwaukee appears to best balance the need for fast, convenient, and frequent service between Chicago and Milwaukee while still tapping the revenue potential provided by the North Shore suburbs at Glenview and the en route population center of Racine served through Sturtevant.

As the Chicago-Milwaukee corridor develops, however, a different mix of station stops may well be called for. As frequencies increase, nonstop Chicago-Milwaukee service in prime business hours would clearly attract additional passengers and augment the route's revenues. If Amtrak were to extend some *Hiawatha Service* trains beyond Milwaukee to Madison and Green Bay, a significant opportunity may exist to establish a Mitchell International stop to permit air/rail transfers at this site and tap a growing southern Milwaukee suburban population.

The Chicago North Shore suburban station stop needs overnight parking, convenient access to the interstate highway system, and a visible presence in the surrounding communities to be successful. Either the station at Glenview should be improved to incorporate these requirements, or the stop should be relocated to

Current and Potential Hiawatha Station Stops

a facility that could meet these needs, such as Lake Forest.

Finally, a Kenosha stop may become a viable addition if through service to Madison and Green Bay is established, which could permit significant revenue generation from Kenosha to Madison (110 miles) or Green Bay (161 miles). With Kenosha's present Metra service to Chicago (nine weekday round trips), the addition of Amtrak service between Kenosha and Chicago is not warranted, given the deterioration which would occur in Amtrak's end-point Chicago-Milwaukee passenger traffic.